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## Thailand

### Sanitary/Phytosanitary/Food Safety

### Amendments on Food Pathogen Standards

**2009**

**Approved by:**

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U.S. Embassy

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**Report Highlights:**

On March 19, the Ministry of Public Health published its Notification regarding Food Standards as Regards to Pathogens in the Royal Gazette. This notification will become effective September 15, 2009. Importers of products listed in this notification need to present a lab analysis report during the food product registration process to ensure products are pathogen free or do not exceed maximum specified limits stated in this notification.

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Includes PSD Changes: No  
Includes Trade Matrix: No  
Annual Report  
Bangkok [TH1]  
[TH]

## Amendments on Food Pathogens Standards

On March 19, the Ministry of Public Health published its Notification regarding Food Standards as Regards to Pathogens in the Royal Gazette. This notification will become effective September 15, 2009. Importers of products listed in this notification need to present a lab analysis report during the food product registration process to ensure products imported are pathogen free or do not exceed maximum specified limits stated in this notification. The Thai FDA is accepting a lab analysis report issued by government laboratory from the country of origin, government laboratories in Thailand, private laboratories accredited by Thai government or laboratories accredited by international accreditation agencies. The background of this notification can be found under Report [TH8031](#): Additional Measure to Control Food Pathogens in Certain Foods and Beverages

(Draft)

Ministry of Public Health Notification  
RE: Food Standards as Regards Pathogens  
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Whereas it is deemed appropriate to amend the stipulation on the food standards as regards pathogens

By the virtue of provisions of Sections 5 and 6 (2) (3) and (9) of the Food Act B.E. 2522 (1979), in which contain provisions in relation to the restriction of Rights and Liberties of the persons, in respect of which Section 29 and in comprise with Section 33, Section 41, Section 43, and Section 45 of the Constitution of the Kingdom of Thailand so permit by virtue of provisions of law; the Minister of Public Health with the guidance of Food Committee hereby issues a notification as follows:

Clause 1. Repeal the provisions on pathogens, which are prescribed in the notifications of Ministry of Public Health as listed in Attachment 1 of this notification and replace them with the following provision:

“Pathogen free except for certain pathogen as specified in Attachment 2 of the Ministry of Public Health Notification RE: Food Standards as Regards Pathogens dated February 10, 2009”

Clause 2. Other foods not listed in Attachment 1, which are domestically produced or imported for sale, or intended for sale shall be free of pathogens except for certain pathogens as specified in Attachment 3 of this notification.

Clause 3. The methods of analysis for concerned pathogens shall comply with the prescribed methods listed in Attachment 4 of this notification.

Clause 4. Dietary supplements, food additives, and other food products, which already specified list and tolerance level of pathogens in other notifications of Ministry of Public Health shall be exempted from this notification.

Clause 5. This notification shall come into force 180 days from the day following date of its publication in the Government Gazette.

Notified on February 10<sup>th</sup>, 2009

Withaya Kaewparadai  
(Mr. Withaya Kaewparadai)  
Minister of Public Health

(Published in the Government Gazette Vol. 126, Special Part 41 Ngor, dated 19<sup>th</sup> March 2009.)

**Attachment 1**

Attachment to the Ministry of Public Health Notification (No. ...) B.E. ...RE: Food Standards as Regards Pathogens. The notifications of the Ministry of Public Health for those categories of Specific Controlled foods and prescribed foods required to have quality and standards

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1. Clause 3 (3) (C) MOPH Notification No.61 / B.E. 2524(1981) Drinking Water in Sealed Container dated September 7, 1981
2. Clause 3 (3) (C) MOPH Notification No.78 / B.E. 2527(1984) Ice dated January 16, 1984
3. Clause 3 (2) MOPH Notification No.83 / B.E. 2527(1984) Chocolates dated November 15, 1984
4. Clause 3 (5) MOPH Notification No.121 / B.E. 2532(1989) Weight-Control Foods dated May 23, 1989
5. Clause 4 (2) MOPH Notification No.144 / B.E. 2535(1992) Food Packed in Sealed Container dated July 2, 1992
6. Clause 4 (4.10) MOPH Notification No.156 / B.E. 2537(1994) Modified Milk for Infant and Modified Milk of follow up Formula for Infant and Children dated October 14, 1994
7. Clause 4 (4.9) MOPH Notification No.157 / B.E. 2537(1994) Food for Infant and Food of follow up Formula for Infant and Small Children dated October 14, 1994
8. Clause 3 (3.10) MOPH Notification No.158 / B.E. 2537(1994) Supplementary Food for Infants and Yong Children dated October 14, 1994
9. Clause 4 (5) (C) MOPH Notification No.195 / B.E. 2543(2000) Electrolyte Drinks dated September, 2000
10. Clause 6 (6) MOPH Notification No.196 / B.E. 2543(2000) Tea dated September 19, 2000
11. Clause 10 (5) MOPH Notification No.197 / B.E. 2543(2000) Coffee dated September 19, 2000
12. Clause 5 (6) MOPH Notification No.198 / B.E. 2543(2000) Soybean Milk in Sealed Containers dated September 19, 2000
13. Clause 5 (4) (4.3) MOPH Notification No.199 / B.E. 2543(2000) Mineral Water dated September 19, 2000
14. Clause 4 (7) MOPH Notification No.201 / B.E. 2543(2000) Some Particular Kinds of Sauces dated September 19, 2000
15. Clause 4 (5) MOPH Notification No.202 / B.E. 2543(2000) Food Seasonings derived from the Hydrolysis or Fermentation of Soybean Protein dated September 19, 2000
16. Clause 4 (5) MOPH Notification No.206 / B.E. 2543(2000) Butter Oil dated September 19, 2000
17. Clause 4 (6) MOPH Notification No.207 / 2543(2000) Margarine dated September 19, 2000
18. Clause 5 (7), Clause 6 (8), Clause 7 (6), Clause 8 (7), Clause 9 (6) and Clause 10 (7) MOPH Notification No. 208 / B.E. 2543(2000) Cream dated September 19, 2000
19. Clause 5 (3) MOPH Notification No. 209 / B.E. 2543(2000) Cheese dated September 19, 2000
20. Clause 5 (4), Clause 6 (4), Clause 7 (4), Clause 8 (3), and Clause 9 (2) MOPH Notification No.210 / B.E. 2543(2000) Semi-processed Food dated September 19, 2000
21. Clause 4 (12) MOPH Notification No.211 / B.E. 2543(2000) Honey dated September 19, 2000

22. Clause 4 (4) MOPH Notification No.213 / B.E. 2543(2000) Jam, Jelly and Marmalade in Sealed Containers dated September 19, 2000
23. Clause 4 (6) MOPH Notification No.214 / B.E. 2543(2000) Beverage in Sealed Containers dated September 19, 2000
24. Clause 5 (4.6) MOPH Notification No. 222 / B.E. 2544 (2001) Ice Cream dated July 24, 2001
25. Clause 4 (3), 5 (4), and 6 (4) MOPH Notification No. 226 / B.E. 2544 (2001) Ghee dated July 23, 2001
26. Clause 4 (7) MOPH Notification No. 227 / B.E. 2544 (2001) Butter dated July 23, 2001
27. Clause 4 (1) MOPH Notification No. 236 / B.E. 2544 (2001) Alkaline-preserved Eggs dated August 20, 2001
28. Clause 2 (5) MOPH Notification No. 262 / B.E. 2545 (2002) Stevioside and Foods Containing Stevioside dated September 26, 2002
29. Clause 12 (10), 15 (9), and 16 (9) MOPH Notification No. 265 / B.E. 2545 (2002) Cow' s Milk dated December 19, 2002
30. Clause 8 (10) and 9 (8) MOPH Notification No. 266 / B.E. 2545 (2002) Flavoured Milk dated December 19, 2002
31. Clause 7 (3) MOPH Notification No. 267 / B. E. 2545 (2002) Other Milk Products dated December 19, 2002
32. Clause 4 (2) MOPH Notification No. 280 / B.E. 2547 (2004) Herbal Tea dated June 4, 2004
33. Clause 7 (7) MOPH Notification No. 289 / B.E. 2548 (2005) Yogurt dated January 17, 2005

## Attachment 2

### Food Standards as Regards Pathogens

Attachment to the Ministry of Public Health Notification RE: Food Standards as Regards Pathogens.

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| Food Type  | Pathogen Name              | Tolerance Level             |
|--|----------------------------|-----------------------------|
| 1. Modified Milk for Infant (Powder or Dry)<br>MOPH Notification No.156 / B.E. 2537(1994) RE: Modified Milk for Infant and Modified Milk of follow up Formula for Infant and Children dated October 14, 1994<br>2. Infant Food (Powder or Dry)<br>MOPH Notification No. 157 / B.E. 2537(1994) RE: Food for Infant and Food of follow up Formula for Infant and Small Children dated October 14, 1994   | 1. Salmonella spp.         | None in 25 gram             |
|  | 2. Staphylococcus aureus   | None in 0.1 gram            |
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram |
|  | 4. Enterobacter sakazakii  | None in 10 gram             |
| 3. Modified Milk of follow up Formula for Infant and Children (Powder or Dry)<br>MOPH Notification No.156 / B.E. 2537(1994) RE: Modified Milk for Infant and Modified Milk of follow up Formula for Infant and Children dated October 14, 1994<br>4. Food of follow up Formula for Infant and Small Children (Powder or Dry)<br>MOPH Notification No. 157 / B.E. 2537(1994) RE: Food for Infant and Food of follow up Formula for Infant and Small Children dated October 14, 1994 | 1. Salmonella spp.         | None in 25 gram             |
|  | 2. Staphylococcus aureus   | None in 0.1 gram            |
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram |
| 5. Supplementary Food for Infants and Yong Children (Powder or Dry)<br>MOPH Notification No.158 / B.E. 2537(1994) RE: Supplementary Food for Infants and Yong Children dated October 14, 1994  | 1. Salmonella spp.         | None in 25 gram             |
|  | 2. Staphylococcus aureus   | None in 0.1 gram            |
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram |
|  | 4. Clostridium perfringens | Not more than 100 in 1 gram |
| 6. Pasteurized Ready to Drink Milk including other pasteurized ready to drink milk from other animals  |                            |                             |
| (6.1) Cow Milk<br>MOPH Notification No. 265 / B.E. 2545 (2002) RE: Cow's Milk dated December 19, 2002<br>(6.2) Flavoured Milk<br>MOPH Notification No. 266 / B.E. 2545 (2002) RE: Flavoured Milk   | 1. Salmonella spp.         | None in 25 ml.              |
|  | 2. Staphylococcus aureus   | None in 0.1 ml              |

|   |                                   |                             |
|---|-----------------------------------|-----------------------------|
| 2545 (2002) RE: Flavoured Milk dated December 19, 2002<br>(6.3) Other Milk Products<br>MOPH Notification No. 267 / B.E.<br>2545 (2002) RE: Other Milk Products dated December 19, 2002<br>(6.4) Other Milks Products from other Animals other than Cows<br>MOPH Notification No. 214 / B.E.<br>2543 (2000) RE: Beverages in Sealed Container dated September 19, 2000 | 3. <i>Bacillus cereus</i>         | Not more than 100 in 1 ml.  |
|   | 4. <i>Listeria monocytogenes</i>  | None in 25 ml.              |
| 7. Powder Milk<br>MOPH Notification No. 265 / B.E.<br>2545 (2002) RE: Cow' s Milk dated December 19, 2002<br>8. Flavoured Milk (Dry)<br>MOPH Notification No. 266 / B.E.<br>2545 (2002) RE: Flavoured Milk dated December 19, 2002<br>9. Other Milk Products (Dry)<br>MOPH Notification No. 267 / B.E.<br>2545 (2002) RE: Other Milk Products dated December 19, 2002 | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Bacillus cereus</i>         | Not more than 100 in 1 gram |
| 10. Cheese<br>MOPH Notification No. 209 / B.E.<br>2543(2000) RE: Cheese dated September 19, 2000  |                                   |                             |
| (10.1) With $a_w$ .0.9  | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Bacillus cereus</i>         | Not more than 100 in 1 gram |
|   | 4. <i>Clostridium perfringens</i> | Not more than 100 in 1 gram |
|   | 5. <i>Listeria monocytogenes</i>  | None in 25 gram             |
| (10.2) With $a_w$ between 0.82-0.9  | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Bacillus cereus</i>         | Not more than 500 in 1 gram |
|   | 4. <i>Listeria monocytogenes</i>  | None in 25 gram             |
| (10.3) With $a_w$ . 0.82  | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Listeria monocytogenes</i>  | None in 25 gram             |
| 11. Cream<br>MOPH Notification No. 208 / B.E.<br>2543(2000) RE: Cream dated September 19, 2000  |                                   |                             |
| (11.1) Dry Cream  | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Bacillus cereus</i>         | Not more than 100 in 1 gram |
| (11.2) Pasteurized Cream  | 1. <i>Salmonella</i> spp.         | None in 25 gram             |
|   | 2. <i>Staphylococcus aureus</i>   | None in 0.1 gram            |
|   | 3. <i>Bacillus cereus</i>         | Not more than 100 in 1 gram |
|   | 4. <i>Listeria monocytogenes</i>  | None in 25 gram             |

|   |   |   |
|---|---|---|
| 12. Ice Cream<br>MOPH Notification No. 222 / B.E.<br>2544 (2001) RE: Ice Cream dated<br>July 24, 2001   |   |   |
| (12.1) Milk Ice Cream, Modified Ice<br>Cream and Mixed Ice Cream  | 1. Salmonella spp.                        | None in 25 gram   |
|   | 2. Staphylococcus aureus                  | None in 0.1 gram  |
|   | 3. Bacillus cereus                        | Not more than 500 in 1 gram   |
|   | 4. Listeria monocytogenes                 | None in 25 gram   |
| (12.2) Milk Ice Cream, Modified Ice<br>Cream, and Mixed Ice Cream<br>(Liquid Form with Pasteurization<br>and Powder or Dry Forms)   | 1. Salmonella spp.                        | None in 25 gram   |
|   | 2. Staphylococcus aureus                  | None in 0.1 gram  |
|   | 3. Bacillus cereus                        | Not more than 100 in 1 gram   |
|   | 4. Listeria monocytogenes                 | None in 25 gram   |
| 13. Pasteurized Ready to Drink<br>Beverages pH . 4.3  |   |   |
| (13.1) Beverages <sup>(1)</sup><br>MOPH Notification No.214 / B.E.<br>2543 (2000) RE: Beverage in Sealed<br>Containers dated September 19,<br>2000<br>(13.2) Tea<br>MOPH Notification No.196 / B.E.<br>2543(2000) RE: Tea dated<br>September 19, 2000<br>(13.3) Coffee<br>MOPH Notification No.197 / B.E.<br>2543(2000) RE: Coffee dated<br>September 19, 2000 and MOPH<br>Notification No. 276 / B.E. 2546<br>(2003) RE: Coffee (No.2) dated<br>December 3, 2003<br>(13.4) Soymilk<br>MOPH Notification No.198 / B.E.<br>2543(2000) RE: Soybean Milk in<br>Sealed Containers dated September<br>19, 2000 | 1. Salmonella spp.                        | None in 25 ml.  |
|   | 2. Staphylococcus aureus                  | None in 0.1 ml.   |
|   | 3. Bacillus cereus                        | Not more than 100 in 1 ml.  |
|   | 4. Clostridium perfringens                | Not more than 100 in 1 ml.<br>For bird's nest beverage, not more<br>than 1,000 in 1 ml. |
|   | 5. Listeria monocytogenes <sup>(2)</sup>  | None in 25 ml.  |
|   |   |   |
| 14. Concentrated or Dried Beverages<br>MOPH Notification No. 214 / B.E.<br>2543 (2000) RE: Beverages in<br>Sealed Container dated September<br>19, 2000   | 1. Salmonella spp.                        | None in 25 gram   |
|   | 2. Staphylococcus aureus                  | None in 0.1 gram  |
|   | 3. Bacillus cereus                        | Not more than 100 in 1 gram   |
|   | 4. Clostridium perfringens <sup>(3)</sup> | Not more than 100 in 1 gram   |
|   | 5. Listeria monocytogenes <sup>(2)</sup>  | None in 25 gram   |
| 15. Semi-Processed Foods<br>MOPH Notification No.210 / B.E.<br>2543(2000) RE: Semi-processed<br>Food dated September 19, 2000   |   |   |
| (15.1) Paste of rice flour, noodle,<br>glass noodle   | 1. Salmonella spp.                        | None in 25 gram   |
|   | 2. Staphylococcus aureus                  | None in 0.1 gram  |



|  |                            |  |
|--|----------------------------|--|
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram                                  |
| (15.2) Seasonings come with the noodle packages  | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram                                |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram                                |
| (15.3) Pre-cooked rice porridge, gruel and instant soup (powder or dry)  | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Bacillus cereus         | Not more than 200 in 1 gram                                  |
|  | 4. Clostridium perfringens | Not more than 100 in 1 gram                                  |
| (15.4) Concentrated Stock <sup>(4)</sup> , Stock Cubes   | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram                                |
|  | 4. Clostridium perfringens | Not more than 100 in 1 gram                                  |
| (15.5) Curry and curry paste <sup>(4)</sup>  | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram                                |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram                                |
| 16. Some Particular Types of Sauces <sup>(4)</sup><br>MOPH Notification No.201 / B.E. 2543(2000) RE: Some Particular Kinds of Sauces dated September 19, 2000  | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram.  |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram                                |
|  | 4. Clostridium perfringens | Not more than 100 in 1 gram                                  |
| 17. Food Seasonings Derived from the Hydrolysis or Fermentation of Soybean Protein<br>MOPH Notification No.202 / B.E. 2543(2000) RE: Food Seasonings derived from the Hydrolysis or Fermentation of Soybean Protein dated September 19, 2000 | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram                                |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram                                |
| 18. Alkaline-Preserved Egg<br>MOPH Notification No. 236 / B.E. 2544 (2001) RE: Alkaline-preserved Eggs dated August 20, 2002   | 1. Salmonella spp.         | None in 25 gram  |
|  | 2. Staphylococcus aureus   | None in 0.1 gram   |
|  | 3. Clostridium perfringens | Not more than 100 in 1 gram                                  |
| 19. Specific Controlled Foods and Prescribed Foods Required to Have  | 1. Salmonella spp.         | None in 25 gram or ml.<br>For water and ice, none in 100 ml. |

|   |                          |   |
|---|--------------------------|---|
| Quality or Standards in Attachment<br>1, which are not listed above | 2. Staphylococcus aureus | None in 0.1 gram or ml.<br>For water and ice, none in 100 ml. |
|---|--------------------------|---|

Remark:

- <sup>(1)</sup> Aloe vera beverages under item 13 (13.1), an analysis is required for Salmonella spp., Staphylococcus aureus and Bacillus cereus
- <sup>(2)</sup> All beverages contain milk under item 13 and concentrated beverages contain milk under item 14, an analysis of Listeria monocytogene is required
- <sup>(3)</sup> For cereal drink under item 14, an analysis of Clostridium perfringens is required
- <sup>(4)</sup> For products, which are not passed through the process according to 3(1) of the MOPH Notification No. 144 B.E. 2535 (1992) RE: Food Packed in Sealed Container dated July 2, 1992

**Attachment 3****Food Standards as Regards Pathogens**

Attachment to the Ministry of Public Health Notification RE: Food Standards as Regards Pathogens.

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| Food Type  | Pathogen Name              | Tolerance Level               |
|--|----------------------------|-------------------------------|
| 1. Finished Gelatin and Jelly (liquid form)<br>MOPH Notification No.100 / B.E. 2529(1986) RE: Label of Finished Gelatin and Jelly dated April 10, 1986       | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Clostridium perfringens | Not more than 100 in 1 gram   |
| 2. Sauces in Sealed Containers <sup>(4)</sup><br>MOPH Notification No.200 / B.E. 2543(2000) RE: Sauces in Sealed Containers dated September 19, 2000         |                            |                               |
| (2.1) Other Types of Sauces  | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram |
| (2.2) Fermented Soybean (Tao Chiew)  | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 2,500 in 1 gram |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram |
| (2.3) Various kinds of sauces  | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 500 in 1 gram   |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram |
| 3. Bread<br>MOPH Notification No. 224 / B.E. 2544 (2001)RE: Bread dated July 23, 2001  | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram   |
|  | 4. Clostridium perfringens | Not more than 100 in 1 gram   |
| 4. Flour of Husked Rice<br>MOPH Notification No.44 / 2523(1980) RE: Flour of Husked Rice dated January 12, 1980  | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram |
| 5. Vitaminized Rice MOPH Notification No. 150 / B.E. 2536 (1993) RE: Vitaminized Rice dated November 3, 1993   | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 100 in 1 gram   |
| 6. Cookie, Biscuit, Cracker<br>MOPH Notification No. 237 / B.E. 2544 (2001) RE: Labeling of Ready-to-Cook Foods and Ready-to-Eat Foods dated August 20, 2001 | 1. Salmonella spp.         | None in 25 gram               |
|  | 2. Staphylococcus aureus   | None in 0.1 gram              |
|  | 3. Bacillus cereus         | Not more than 1,000 in 1 gram |
|  | 4. Clostridium perfringens | Not more than 1,000 in 1 gram |

Remark:

<sup>(4)</sup>For products, which are not passed through the process according to 3(1) of the MOPH Notification No. 144 B.E. 2535 (1992) RE: Food Packed in Sealed Container dated July 2, 1992

**Attachment 4****Methods of Analysis for Concerned Pathogens**

Attachment to the Ministry of Public Health Notification RE: Food Standards as Regards Pathogens.

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## Methods of Analysis for Concerned Pathogens

| <b>Pathogen Name</b>              | <b>Methods of Analysis</b>   |
|-----------------------------------|--|
| 1. <i>Bacillus cereus</i>         | Bacteriological Analytical Manual (BAM) Online. U.S. Food and Drug Administration, updated version or equivalent method  |
| 2. <i>Clostridium perfringens</i> | Bacteriological Analytical Manual (BAM) Online. U.S. Food and Drug Administration, updated version or equivalent method  |
| 3. <i>Listeria monocytogenes</i>  | ISO 11290-1: Microbiology of food and animal feeding stuffs - Horizontal Method for the detection and enumeration of <i>Listeria monocytogenes</i> – Part 1, Detection method, updated version or equivalent method  |
| 4. <i>Salmonella</i> spp.         | ISO 6579: Microbiology of food and animal feeding stuffs - Horizontal Method for Detection of <i>Salmonella</i> spp., updated version or equivalent method.<br>Only for water and ice: ISO 6340: Water Quality-Detection of <i>Salmonella</i> species, updated version or equivalent method.       |
| 5. <i>Staphylococcus aureus</i>   | Bacteriological Analytical Manual (BAM) Online. U.S. Food and Drug Administration, updated version or equivalent method.<br>Only for water and ice: Standard Methods for the Examination of Water and Wastewater: American Public Health Association (APHA), updated version or equivalent method. |
| 6. <i>Enterobacter sakazakii</i>  | ISO/TS 22964 Milk and Milk products – Detection of <i>Enterobacter sakazakii</i> , updated version or equivalent method.   |

End of the Report.